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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,563	11/16/2005	Mark Christopher Hope	M02B155	1379
71134 7590 12/30/2009 Edwards Vacuum, Inc. 2041 MISSION COLLEGE BOULEVARD SUITE 260 SANTA CLARA, CA 95054				
EXAMINER				
TRIEU, THERESA				
ART UNIT		PAPER NUMBER		
3748				
NOTIFICATION DATE		DELIVERY MODE		
12/30/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LORETTA.SANDOVAL@EDWARDSVACUUM.COM

Office Action Summary

Application No.

10/531,563

Applicant(s)

HOPE ET AL.

Examiner

Theresa Trieu

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 22-30, 32-35, 37, 38 and 42-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37 and 38 is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-30, 32-34 and 42-54 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Dec. 8, 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is responsive to the applicants' RCE filed on Nov. 24, 2009.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 24, 2009 has been entered.

Claims 1, 18 and 22 have been amended. Claims 21, 31, 36 and 39-41 have been canceled. Currently, claims 1-20, 22-30, 32-35, 37, 38 and 42-54 are pending in this application.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "3" has been used to designate both "inlet region" (page 9, line 5) and "inlet port" (see page 7, line 2); reference character "4" has been used to designate both "exhaust region" (page 9, line 5) and "exhaust port" (see Fig. 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 includes language drawn to “a first direction not in direct opposite to a second direction in which the first fluid flows into the housing via the inlet”. The original specification does not provide support for this structure.

Claim Objections

4. Claim 52 is objected to because claim 52 depends on itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 9, 10, 18, 22-24, 34, 51, 52 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Naya et al. (Naya) (Patent Number 4,984,974).

Regarding claims 1-3, 9, 10, 18, 51 and 52, Naya discloses a pump comprising: a rotor 5 and a stator; a housing 1 enclosing the rotor and the stator, the housing having an inlet 14 for receiving a first fluid, and a port 16 positioned downstream and spaced apart from the inlet; and means (not numbered; however, clearly seen in Fig. 10) for injecting a second fluid into the housing through the port in a first direction not in direct opposite to a second direction in which the first fluid flows into the housing via the inlet 14, wherein the second fluid acts on deposits on a surface of the rotor 5 and a surface of the stator; a plurality of ports (16 – see Fig. 6); the ports 16 are located radially about the housing; the pump is a screw pump having two threaded rotors. the port 16 is located downstream of a first two complete turns of thread of the threaded rotors; the housing 1 comprises a two skinned wall (not numbered; however, clearly seen in Fig. 1) having an inner skin and an outer skin and forming a cavity 2 between the inner and outer skins. the inner skin of the housing being adapted to form the stator.

The method claims 22-24, 34 and 54 are inherent in the operation of any one of the Naya device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-8, 13-17, 19, 20, 25-30, 32, 33, 42-50 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naya in view of Ingistov et al. (Ingistov) (U.S. Patent Application Publication Number 2002/0141882).

Naya discloses the invention as recited above; however, Naya fails to disclose a position of the ports.

Regarding claims 4 and 25, Ingistov teaches that it is conventional in the art to configure the ports 34 are located along a length of the rotor 14. With regard claims 42 and 43, Ingistov discloses at least one of the ports 34 includes a nozzle 38 for spraying the second fluid; the nozzle 38 is integrally formed within at least one of the ports 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have positioned the ports being located along a length of the rotor, since the ports would have performed equally well in that location and the mere repositioning of parts not effecting the functioning of the device involves only routine skill in the art, *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (see MPEP §2144.04).

Regarding claims 5-8, 13-17, 19, 20, 26-30, 32, 33, 44-50 and 53, Ingistov discloses at least one of the ports 34 includes a nozzle 38 for spraying the fluid; the nozzle 38 is integrally formed within at least one of the ports 34; the second fluid being liquid/solvent/gas/steam/halogen/the second fluid reactive substance for reacting with the deposits/the fluid comprising one a compound selected from the group consisting of ClF₃, F₂, and NF₃; the pump being connected to a chemical vapor deposition apparatus having a process chamber and an outlet of the process chamber, wherein the pump inlet 34 is connected to the

outlet of the process chamber, and wherein the deposits are a by-product of a chemical vapor deposition process.

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naya.

Naya disclose the invention as recited above; however, Naya fails to disclose the pump being a claw/Roots pump. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the claw/Roots pump in the modified Naya device since these types of pumps are shown to be conventionally utilized to pump a liquid and the claw/Roots pumps are routinely utilized as vacuum pumps.

Allowable Subject Matter

8. Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 37 and 38 are allowed.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

/Theresa Trieu/
Primary Examiner, Art Unit 3748